

**APPENDIX B**

**TUOLUMNE RIVER PRELIMINARY DESIGNS**



**Tuolumne River  
Mile 48.5  
Riffle 4A**

This site has good slope but is very wide and shallow. There is good access from the north bank. There is an opportunity to create an undulating channel bottom similar to heavily used spawning areas immediately upstream.

The current substrate is large cobble, laden with silt. Restoration will involve excavating the channel and replacing the substrate with washed, graded spawning gravel. The excavated material will be used to move in the banks and increase velocities by making the channel narrower. Two control structures will be used to maintain grade.

The restored site will be approximately 100 feet wide and 880 feet long. Approximately 4,900 square yards of spawning gravel will be available after restoration.

The restoration is roughly estimated to cost \$172,000 and take four weeks to construct. No significant permitting issues are seen at this time.



Tuolumne River, Mile 48.5, Riffle 4A.  
Right bank looking upstream.

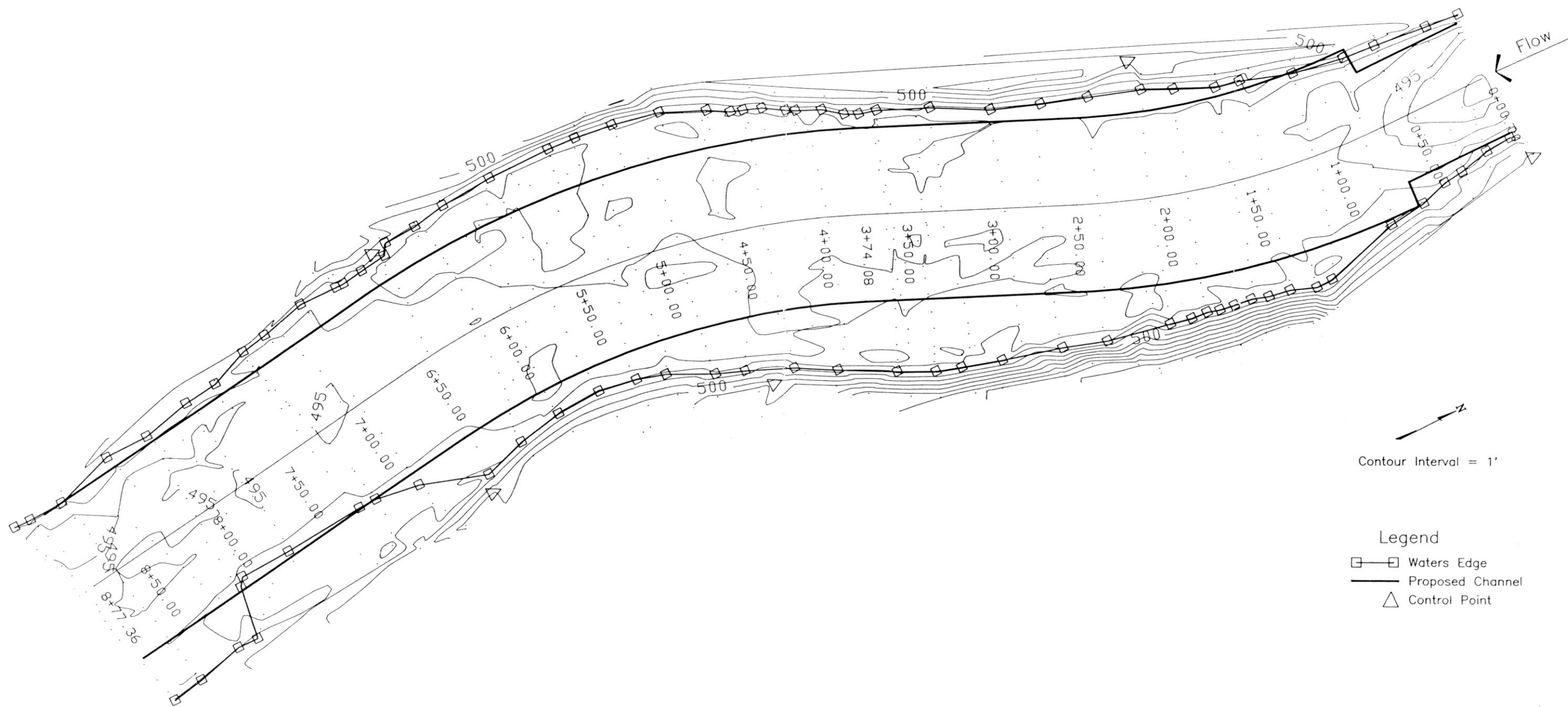




Tuolumne River, Mile 48.5, Riffle 4A.  
Right bank looking downstream.



Tuolumne River, Mile 48.5, Riffle 4A.  
Left bank looking downstream.



Tuolumne River Riffle 4A, Preliminary Design

**Tuolumne River**  
**Mile 48.0**  
**Riffle 4B**

The gravel at this site was experimentally cleaned in spring 1991. It has already silted, and lots of vegetation has encroached into the channel. The riffle is very wide and shallow.

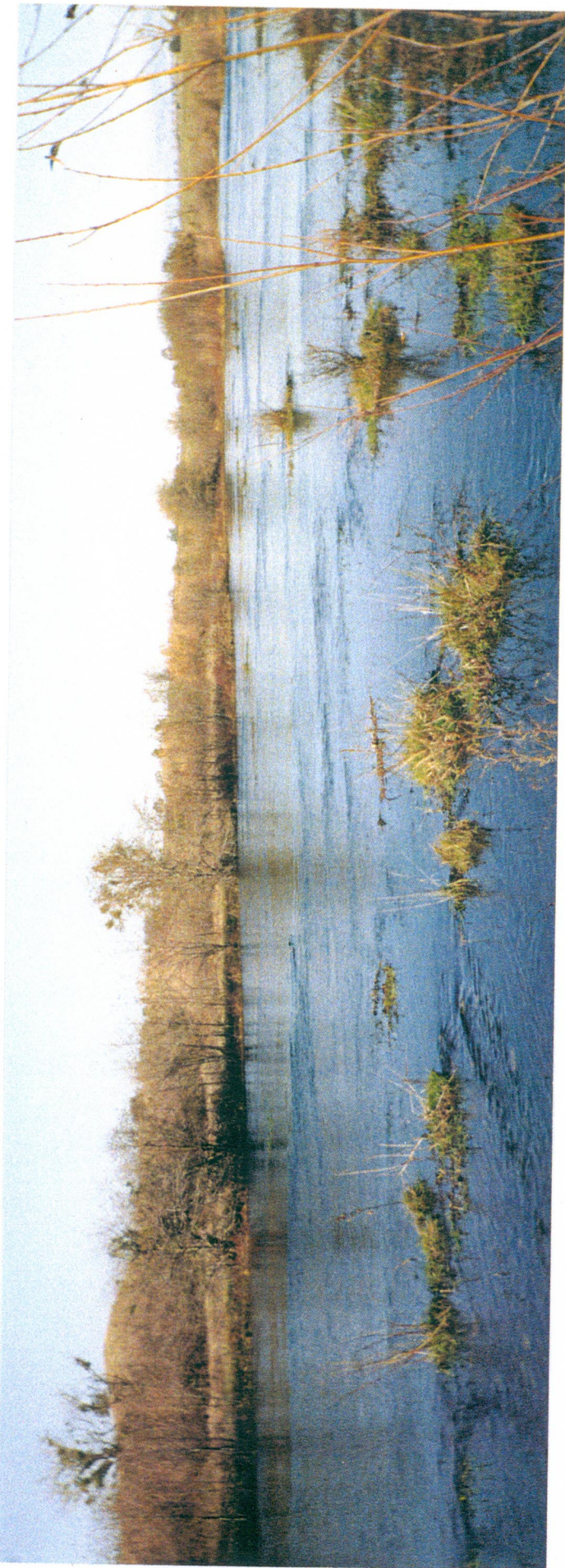
This site has good slope but is very wide and shallow. There is good access from the north bank. There is an opportunity to create an undulating channel bottom similar to heavily used spawning areas immediately upstream.

The current substrate is large cobble, laden with silt. Restoration will involve excavating the channel and replacing the substrate with washed, graded spawning gravel. The excavated material will be used to move in the banks and increase velocities by making the channel narrower. Two control structures will be used to maintain grade.

The restored site will be approximately 100 feet wide and 680 feet long. Approximately 7,600 square yards of spawning gravel will be available after restoration.

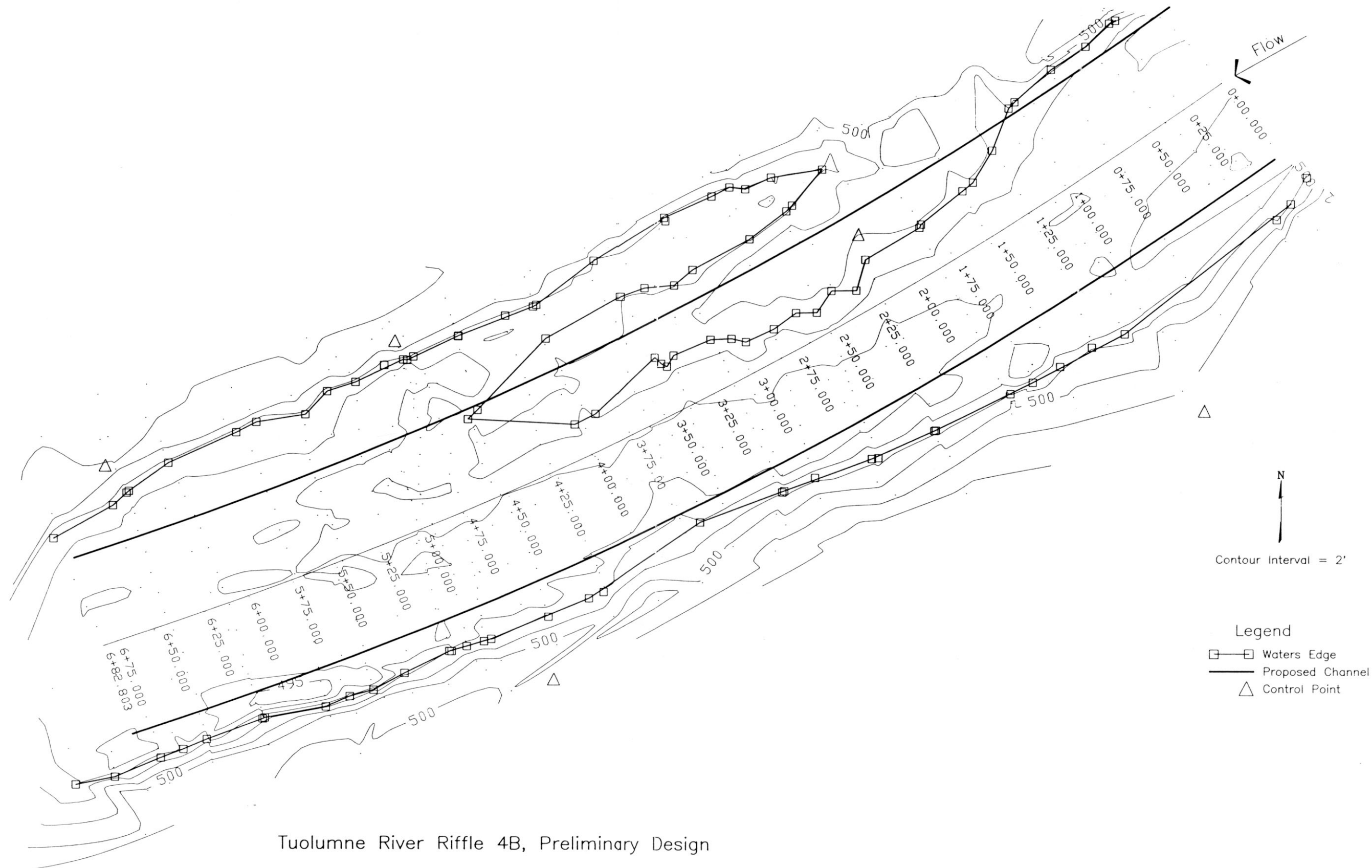
The restoration is roughly estimated to cost \$135,000 and take four weeks to construct. No significant permitting issues are seen at this time.





Tuolumne River, Mile 48.0, Riffle 4B





DWR/SJD Jan. 1994      Prepared by K. Faulkenberry      Drawn by K. Winden



